

WHAT IS CLAIMED IS

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1. An image forming apparatus, in which software is used for forming an image, comprising:

a display unit;

a display information controlling unit
10 configured to control information displayed on said display unit;

an interface unit configured to provide a physical connection with an external apparatus on which an application is implemented;

15 a control unit configured to control said interface unit and provide a logical connection with the external apparatus; and

a relay unit configured to relay between the application and the software, said relaying unit
20 notifying said display information controlling unit of a display that is to be presented on said display unit to indicate ongoing preparation of the application until the application becomes operational when said control unit provides the
25 logical connection with the external apparatus.

5 2. The image forming apparatus as claimed
in claim 1, wherein said display information
controlling unit makes said display unit present
said display in response to an attempt by a user to
use the application.

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 3. The image forming apparatus as claimed
15 in claim 1, wherein said control unit notifies said
relay unit that no communication is possible, in
response to a physical or logical disconnection
occurring with respect to the external apparatus.

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 4. The image forming apparatus as claimed
in claim 1, further comprising a starting unit
25 configured to start said relay unit.

5 5. The image forming apparatus as claimed
in claim 4, wherein said starting unit starts said
relay unit after the external apparatus is
physically connected.

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6. The image forming apparatus as claimed
in claim 4, wherein said starting unit utilizes said
15 control unit to check whether the external apparatus
is physically connected.

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7. The image forming apparatus as claimed
in claim 1, further comprising a registering unit
configured to register the application, such
registration making the application operable through
25 said image forming apparatus.

5 8. The image forming apparatus as claimed
in claim 7, wherein said registering unit
unregisters the application in response to a request
from said relay unit.

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 9. The image forming apparatus as claimed
in claim 8, wherein said relay unit requests said
15 registering unit to unregister the application, such
request being made in response to a notice from said
control unit indicating that no communication is
possible.

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 10. The image forming apparatus as claimed
in claim 8, wherein, when said registering unit
25 unregisters the application, said display

information controlling unit switches the information displayed on said display unit to other information if the information displayed on said display unit is associated with the application.

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11. The image forming apparatus as claimed
10 in claim 10, wherein said other information is associated with the software.

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12. The image forming apparatus as claimed
in claim 9, wherein said registering unit is configured to register the application again if the external apparatus is reconnected after the
20 application is unregistered.

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13. The image forming apparatus as claimed

in claim 4, further comprising a program unregistering unit which unregisters said relay unit by releasing a memory area in which a program of said relay unit is laid out.

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14. The image forming apparatus as claimed
10 in claim 13, wherein said relay unit, responding to a notice from said control unit indicating that no communication is possible, notifies said starting unit that the application is unregistered, and requests said program unregistering unit to
15 unregister the application.

20 15. The image forming apparatus as claimed in claim 14, wherein said relay unit is restarted by said starting unit if the external apparatus is connected after said relay unit is unregistered.

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16. The image forming apparatus as claimed
in claim 3, wherein said relay unit, responding to a
5 notice from said control unit indicating that no
communication is possible during execution of the
application, notifies said display information
controlling unit of a display that is to be
presented on said display unit to indicate error
10 occurrence.

15 17. The image forming apparatus as claimed
in claim 3, further comprising an email sending unit,
wherein said relay unit, responding to a notice from
said control unit indicating that no communication
is possible during execution of the application,
20 instructs said email sending unit to send email
indicative of error occurrence to a predetermined
mail address.

18. A method of allowing an external application to be operated through an image forming apparatus having a display unit, the external application being implemented in an external apparatus connectable to the image forming apparatus, said method comprising the steps of:

connecting the external apparatus to the image forming apparatus;

10 preparing a display that indicates ongoing preparation until the application becomes operational; and

presenting the display on the display unit until the application becomes operational in response to an attempt by a user to use the application.